

SILVICULTURE:

Silviculture is a branch of forestry dealing with the development and care of forests. West Virginia has approximately 12 million acres of forest land of the States 15.4 million acres. Wood production is a growing industry in West Virginia. About 29,000 jobs and 3.1 billion dollars of business volume are generated from the wood product industry.

Despite the benefits from the wood product industry, there are environmental impacts that tend to cause damage to streams and rivers. Studies show that a timber harvest operation disturbs 8-10 percent of the total area in road construction and landing sites. These areas can contribute to erosion, soil loss, and sedimentation. Amelioration of these effects include planting trees, which can be a long term benefit to soil and water resources. However, if heavy equipment is used, damage can ensue as soils are compacted, ruts and furrows are created that accelerate water flow and cause erosion along streambanks.

Another culprit of water pollution is wildfires. These fires drastically reduce woodland values, potential timber production, and wildlife habitat. There is a study that shows that extensive erosion can result from forest fires. It was found that both high intensity fires and repeatedly burned forests are sources of severe soil erosion, which leads to water pollution.

One program that West Virginia currently has is the Logging Sediment Control Act, which establishes a process for logger licensing, logger certification, timber operation notification, posting and best management practice implementation. Other existing programs include Forest Protection, specifically preventing fires, Cooperative Forest Management, which provides technical assistance to private nonindustrial landowners in proper forest management activities, Tree Farm Program, which encourages private forest landowners to manage their forests to protect wildlife habitat, water quality and recreational opportunities. Urban and Community Forestry programs that emphasize forestry in urban areas. Trees reduce surface runoff and increase ground water recharge. These outcomes benefit water quality. The Stewardship Incentive Program, Forest Incentive Program and Watershed Management are three other programs in place to encourage improvement of soil and water quality, tree quality, and protecting prioritized hydrologic regions, respectively.

Specific goals in the management plan for silviculture include:

1. Administer the Logging Sediment Control Act which will reduce the impacts or potential impacts to water quality by the year 2005.
2. Educate industry and consulting foresters along with private non-industrial landowners on the use and advantages of best management practices.

3. Reduce the occurrence and size of fires and protect the forest land from insect and disease problems by developing a strong prevention program in each county.
4. Enhance detection capability and increase suppression activity.
5. Monitor and protect forest health.
6. Encourage forest management on all forest land which will ensure a productive forest and enhance water quality by the year 2005.
7. Conduct multiple-use management on public lands.
8. Promote and service the West Virginia Tree Farm Program, which requires a management plan for involvement.
9. Increase communities involved with the Urban Forestry Program by the year 2005.
10. Support the Stewardship Incentive Program (SIP) and Forest Incentive Program (FIP) and promote increased landowner involvement by 2005.
11. Cooperatively manage watersheds as a whole with other players and achieve common goals with sound forestry management practices by 2010.